

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

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To:

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NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Rule 71.1)

Date of mailing
(day/month/year)

03.01.2005

Applicant's or agent's file reference
PCT-25461

IMPORTANT NOTIFICATION

International application No.
PCT/IT 03/00581

International filing date (day/month/year)
29.09.2003

Priority date (day/month/year)
04.10.2002

Applicant
LA GIOIA, Antonio

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international
preliminary examining authority:



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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT-25461	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IT 03/00581	International filing date (day/month/year) 29.09.2003	Priority date (day/month/year) 04.10.2002
International Patent Classification (IPC) or both national classification and IPC B30B9/06		
Applicant LA GIOIA, Antonio		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 4 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 18.02.2004	Date of completion of this report 03.01.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Belibel, C Telephone No. +31 70 340-3215	



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IT 03/00581

I.- Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-12 as originally filed

Claims, Numbers

1-13 received on 18.10.2004 with letter of 12.10.2004

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-13
	No: Claims	
Inventive step (IS)	Yes: Claims	2,3
	No: Claims	1,4-13
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

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Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Reference is made to the following documents:
D1: US-B-6 298 576 (LA GIOIA ANTONIO) 9 October 2001 (2001-10-09)
D2: FR-A-2 701 664 (ENITIAA) 26 August 1994 (1994-08-26)
D3: US-A-3 559 566 (LARSSON LARS-INGVAR ET AL) 2 February 1971 (1971-02-02)
- 2.1 Document **D1**, which is considered to represent the most relevant state of the art, discloses a cage drying-compacting apparatus for wastes from which the subject-matter of claim 1 differs in that it provides further heat sources, provided inside the cage drying-compacting apparatus, all along its length, said sources being comprised of at least one tube which the thermal carrier fluid runs through, means for inlet of the material to be subjected to treatment, in a position close to one of the two ends of the apparatus, and means for collecting the material subjected to the treatment, in correspondence of the opposed end.
The subject-matter of claim 1 is therefore new (Article 33(2) PCT).
- 2.2 The subject-matter of dependent claims **2-11** is therefore also new (Article 33(2) PCT).
- 3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.
- 3.2 The document **D1** is regarded as being the closest prior art to the subject-matter of claim 1 and discloses (the references in parentheses applying to this document): a cage drying-compacting apparatus for wastes, comprising a cylindrical body (10) and at least a pair of pressure plates (14), said cylindrical body (10) being comprised of heating longitudinal tubes (11), coursed by a thermal carrier fluid, provided along the generatrices of the cylinder(10) and spaced each other, in such a way to realise

longitudinal slots for outlet of vapour but not for outlet of material, coupled by constraint hinge means, positioned at a given distance between centres, and said pressure plates (14) being placed opposed to each other, operating as movable basis of said cylindrical body (10) and acting as pressing pistons, steam generated by the heating step of said wastes being discharged through the longitudinal slots between said heating tubes (11).

- 3.3 The subject-matter of claim 1 therefore differs from this known cage drying-compacting apparatus in that: it provides further heat sources, provided inside the cage drying-compacting apparatus, all along its length, said sources being comprised of at least one tube which the thermal carrier fluid runs through, means for inlet of the material to be subjected to treatment, in a position close to one of the two ends of the apparatus, and means for collecting the material subjected to the treatment, in correspondence of the opposed end.
- 3.4 The problem to be solved by the present invention may therefore be regarded as how to reach a uniform distribution of temperature in the product within a short time (see application, page 3, lines 24-26).
- 3.5 The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons: these features have already been employed for the same purpose in a similar drying-compacting apparatus (see document **D2**; page 8, lines 28-35; page 9, lines 4-10; page 9, line 37 - page 9, line 4; figure). It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply these features with corresponding effect to a drying-compacting apparatus according to document **D1**, thereby arriving at a drying-compacting apparatus according to claim 1.
- 3.6 A similar argumentation concerning the inventive step could be done using the combination of document **D1** and **D3**.
4. The combination of the features of dependent claims **2 and 3** is neither known from, nor rendered obvious by, the available prior art.

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EXAMINATION REPORT - SEPARATE SHEET**

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- 4.1 The subject-matter of claims **2 and 3** therefore differs from this known cage drying-compacting apparatus in that: further heat sources comprise a plurality of tubes coursed by thermal carrier fluid and placed aligned, spaced each other, in such a way to divide the inner volume of the cylindrical body into sections connected each other, for each section being provided a pair of opposed pressure plates, shaped on the basis of the shape of each section.
- 4.2 The problem to be solved by the present invention may therefore be regarded as how to reach a uniform distribution of temperature in the product within a short time (see application, page 3, lines 24-26).
- 4.3 Since the features differing from D1 are neither disclosed nor suggested by any of the cited prior art documents the subject-matter of claims **2 and 3** of the present application can be considered as involving an inventive step (Article 33(3) PCT).
5. Dependent claims **4-11** do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, see documents D1 and D2 and the corresponding passages cited in the search report.
- 6.1 The application does not meet the requirements of Article 6 PCT, because claim **12** is not clear. The terms "lower death end" used in claim **12** has no well-recognised meaning and leave the reader in doubt as to the meaning of the technical feature to which they refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.
- 6.2 Claim **12** contains all the subject-matter of claim **1** with an addition of process steps. The subject-matter of claim **1** is new. Therefore the subject-matter of claim **12** is new.
- 6.3 The subject-matter of dependent claim **13** is therefore also new (Article 33(2) PCT).

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7. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim **12** does not involve an inventive step in the sense of Article 33(3) PCT. A similar argumentation as the one found in paragraphs 3.2-3.5 can be used to demonstrate it because the process steps are already disclosed in document **D2**, see claims 1, 2, 4, 6-9, 13-15, 19; page 8, lines 28-35; page 9, lines 4-10; page 9, line 37 - page 9, line 4; figure.
8. There is a typing error. In claim **13**, "according to claim 11" should be "according to claim 12".
9. Dependent claim **13** does not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, because the features are known from the combination of the documents D1 and D3.
10. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D2 and D3 is not mentioned in the description, nor are these documents identified therein.